
A New Species of *Cassipourea* (Rhizophoraceae) from Western Cameroon

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ABSTRACT. The new species *Cassipourea korupensis* Kenfack & Sainge (Rhizophoraceae) from western Cameroon is described and illustrated, and its conservation status discussed. Unlike other species of subgenus *Lasiosepalum* Alston, in which it is provisionally placed, the new species has a distinctive glabrous ovary and a cupuliform calyx.

Key words: *Cassipourea*, Korup Forest Dynamics Plot, Korup National Park, Rhizophoraceae, southwest Cameroon.

During the establishment of the 50-hectare Korup Forest Dynamics Plot in southern Korup National Park in 1997 (Chuyong et al., 2004), we came across a new species that undoubtedly belongs in the genus *Cassipourea* Aublet (Rhizophoraceae), because of its opposite and stipulate leaves, articulate pedicel, superior ovary, and nectary. However, it does not match any of the species of the genus in Rhizophoraceae so far described from western and central Africa (Alston, 1925; Pellegrin, 1953; Liben, 1986, 1987; Floret, 1986, 1988), and its classification within the seven subgenera currently recognized within the genus *Cassipourea* (Alston, 1925; Floret, 1988) is unclear. The calyx of the new species is tomentose within, and this character clearly excludes it from the five (of seven) subgenera that have calyces glabrous or glabrescent within: *Cassipourea* subgenera *Weihea* (Sprengel) Alston, *Pumiloweihea* Floret, *Dinklageoweihea* (Engler) Floret, *Zenkeroweihea* (Engler) Floret, and *Dactylopetalum* (Bentham) Alston. The thecae of the anthers in the new species have long, fine, flexuous trichomes, separating it from *Cassipourea* subg. *Cassipourea*, which has glabrous thecae. The

new species fits best within *Cassipourea* subg. *Lasiosepalum* Alston, based on the apical articulation of its pedicel, stamens more than four times as many as the petals or the sepals and inserted outside the disk, and the pubescent anther thecae. However, the new species is distinct from other members of subgenus *Lasiosepalum* in two important characters: first, the ovary is completely glabrous, and second, the calyx is cupuliform, lacking long and reflexed lobes. We consider the available information sufficient to place the new taxon in subgenus *Lasiosepalum*, but further studies are needed to confirm this placement. Given the differences with six of the seven subgenera described above and the two characters separating our specimens from the other species of subgenus *Lasiosepalum*, we are confident in describing *Cassipourea korupensis* as a distinctive new species.

***Cassipourea korupensis* Kenfack & Sainge, sp. nov.**

TYPE: Cameroon. South West Province: Ndian Div., Korup Nat. Park, ca. 180 m, 05°03'86"N, 08°51'17"E, 11 Apr. 2003 (fl), *M. Sainge 1101* (holotype, YA; isotypes, K, LBV, MO, SCA, WAG). Figure 1.

Haec species arbor sylvicola quoad sepala intus dense tomentosa atque stamina pubescentia ad species *Cassipoureae* subgeneris *Lasiosepali* maxime accedit, sed ab eis calyce cupuliformi atque ovario glabro distinguitur.

Tree, to ca. 10 m tall and 30 cm DBH, crown dense; branches terete, glabrescent to shortly appressed-puberulous; internodes (25–)35–60(–80) cm



Figure 1. *Cassipourea korupensis* Kenfack & Sainge, sp. nov. —A. Flowering branch. —B. Outer surface of stipule. —C. Inner surface of stipule. —D. Flower without petals. —E. Longitudinal section of a flower. —F. Dorsal view of a fragment of the androceum. —G. Pistil. —H. Ovary from above with style removed. —I. Fruit with persistent calyx. Scale bar: A = 3 cm; B–I = 3 mm. A–H drawn from *M. Sainge 1101* (YA); I drawn from *Kenfack 1186* (MO).

long. Stipules usually persistent at 2 terminal nodes, caducous on subsequent ones, triangular, 8–11 mm long, 4–5 mm wide at base, subacute to obtuse at apex, with a diffuse midrib, abaxial surface densely appressed-pubescent to glabrescent, adaxial surface glabrous, with a line of ca. 30 colleter at base; petiole glabrous, stout, 5–11 mm long; lamina glabrous, broadly elliptic to elliptic-lanceolate, abruptly acuminate at apex, cuneate to ± rounded at base, entire at margin, coriaceous, 7–16 × 3.5–8.5 cm, with 4 to 6 pairs of lateral nerves on each side of midrib, visible but not conspicuous on upper surface, prominent on lower surface. *Inflorescence* axillary, fasciculate, 1- to 4-flowered; bracts ovate, 2–3 mm long, ca. 3 mm wide, tomentulose outside, glabrous inside; pedicel green, drying brown, glabrous, rarely glabrescent, (12–)20–25 mm long, articulated less than 2 mm from the apex. *Flowers* 5(or 6)-merous; calyx white, drying brown, sparsely tomentulose outside, densely tomentose inside, cupuliform, ca. 11 mm high, 12–15 mm diam., ca. 1 mm thick, the tube 3–5 mm long, as long as or shorter than lobes, the lobes acute, 4–7 mm long; petals unknown, early caducous; stamens ca. 60, as long as or shorter than calyx tube, the filaments 2–3 mm long, inserted outside disk, the anthers oblong, apiculate, ca. 2 mm long with fine long flexuous trichomes; ovary 3- or 4-locular depressed-subglobose, ca. 2 mm high, to 3 mm diam., glabrous; style stout, to 3 mm long; stigma capitate. *Fruit* subglobose, emerging from persistent calyx, slightly depressed at the top, 8–11 mm high, glabrous.

Habitat and distribution. So far, *Cassipourea korupensis* is known only from species-rich, closed-canopy, evergreen forest at the southern end of Korup National Park. The area has been described in detail by Chuyong et al. (2004) and Thomas et al. (2003). This forest has several unusual features: very high but strongly seasonal rainfall; very leached nutrient-poor soils; and the dominant species, *Oubanguia alata* Baker f. (Lecythidaceae, formerly Scytopetalaceae), which has been rarely collected outside the Korup–Mount Cameroon area. Within the 50-hectare Korup Forest Dynamics Plot, the new species was mainly confined to the lower, flatter part of the plot, which has deeper soil, and was rare on steeper slopes (Thomas et al., 2003).

Phenology. Flowers collected in April; fruits collected in May.

Provisional conservation status. The new species *Cassipourea korupensis* is so far known only from Korup National Park, where it appears to regenerate, based on the size-class distribution. Of the 47

individuals enumerated within the 50-hectare plot, 37 had diameters less than 5 cm (Thomas et al., 2003). The protected status of Korup National Park means that the only known population of this species is free from human disturbance. This species is quite undercollected and is known so far only from the specimens cited herein despite various botanical surveys in southwest Cameroon, which might give an indication of its rarity. Based on this evidence and with the hope that its publication will contribute to a better knowledge of its distribution and conservation status, following the IUCN (2001) Red List Categories and Criteria version 3.1, we evaluate the provisional conservation status of this species as Vulnerable VU D1. However, it is likely that future surveys will show the species to be more common and more widely distributed. Despite increasing attention from botanists and forest conservation programs, the forests of the Lower Guinea refugium that includes the Korup area remain rather poorly known botanically, and most botanical surveys in the area discover new and poorly known taxa and range extensions.

Paratype. CAMEROON. **South West Province:** Korup For. Dyn. Plot, Korup Nat. Park, *Kenfack 1186* (MO, SCA, YA).

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